

HIGH POWER SILICON CARBIDE AND SILICON  
SEMICONDUCTOR DEVICE PACKAGE

ABSTRACT OF THE DISCLOSURE

A silicon carbide semiconductor field effect transistor and a silicon metal oxide semiconductor field effect transistor are packaged as a hybrid field effect transistor having a high voltage resistance provided by the silicon carbide device and a low switch-on resistance provided by the silicon device. The two devices are co-packaged electrode-on-electrode. A die-on-die configuration reduces the footprint of the hybrid device, and a side-by-side configuration provides an increased area for thermal management of the hybrid device.